6995, Rush County Schools

PROJECT ABSTRACT

The primary goal for our Learning Technologies grant project is for teachers to use instruction and assessment in a more dynamic and interactive way for greater student achievement in math and reading. This goal aligns with the mission of the technology plan for Rush County Schools which emphasizes providing technology equipment and resources to meet all of the instructional and assessment needs of our students and staff members.

In order to provide the technology equipment to meet all of the instructional and assessment needs in reading and math, we will be equipping all fourth through sixth grade classrooms with interactive whiteboards and learner response systems. The interactive whiteboards would increase student engagement and participation. In researching technological tools that would help to meet both our instructional and technological needs, we found a study by Robert Marzono. In this study, Marzano found that ¿using interactive whiteboards was associated with a 16 percentile point gain in student achievement.¿ We also plan to provide each fourth through sixth grade classroom with a classroom set of learner response systems. These systems would improve formative assessments in the classroom by providing teachers immediate feedback on student learning. This feedback will allow teachers to deliver instruction at the optimal level.

In order to provide resources to meet all of the instructional and assessment needs of our students and staff members, teachers will be given opportunities for professional development and collaboration. Teachers will receive professional development in creating lessons in reading and math that provide for more interactive instruction. Teachers will also learn to create formative assessments that help them to gauge student achievement and provide differentiated instruction based on student responses. Training will be provided in using interactive whiteboards and learner response systems to facilitate these lessons and assessments. Teachers from Rush County Schools will meet with teachers from Mt. Vernon Community Schools in order to learn how they are already implementing these instructional strategies. Teachers will also collaborate with teachers in their grade levels to create lessons and formative assessments in reading and math based on the professional development they receive.

This grant will provide the funds for professional development, as well as, the purchase and installation of the interactive whiteboards and learner response systems. Rush County Schools will use local funds to purchase and install projectors in all fourth through sixth grade classrooms to be used with these tools. St. Mary Catholic School will use funds from this grant to also purchase and install projectors.

We will measure the impact of this project by comparing the ISTEP scores in Language Arts and Mathematics from Spring 2010 to Spring 2011. The goal will be for the percent passing to increase in both areas. We will also look at the specific standards areas in the areas of math and reading with the goal being for the percent mastery to increase from Spring 2010 to Spring 2011.

We will also monitor the progress throughout the 2010-2011 school year through the use of teacher created grade-level custom assessments in reading and math, Acuity¿s Predictive Assessments in Language Arts and Math, and Math, and Surveys.

NEEDS/BASELINE

Many of the needs of our elementary schools complement the purposes and requirements of the Learning Technologies Grant Program.

Rush County Schools is a rural school corporation which consists of four elementary schools (K-6), one middle school (7-8), and one high school (9-12). Additionally, there is one private school whose students generally enter the public school as they enter the seventh grade. The enrollment for the school corporation for the 2009-2010 school year is 2713 students. Rush County Schools has a free and reduced lunch population that is 46 percent.

Arlington Elementary School is located in the western part of Rush County. The enrollment for the 2009-2010 school year is 158 students. The free and reduced lunch percentage for Arlington Elementary School is 50 percent. Mays Elementary School is located in the northern part of Rush County. The enrollment for the 2009-2010 school year is 212 students. The free and reduced lunch percentage for Mays Elementary School is 36 percent. Milroy Elementary School is located in southern Rush County. The enrollment for the 2009-2010 school year is 267 students. The free and reduced lunch percentage for Milroy Elementary School is 43 percent. Rushville Elementary School is the largest of the four elementary schools. The enrollment for the 2009-2010 school year is 807 students. Rushville Elementary School also has the largest free and reduced lunch population of all of the schools in Rush County. The free and reduced lunch percentage is 61 percent. For the 2010-2011 school year, we plan to split Rushville Elementary into two smaller elementary schools in order to help better meet the needs or our students that are the most at-risk.

One of our corporation focuses in working to improve math and reading instruction is to improve the technology and opportunities for students to experience various technologies. Our main purpose for improving technology is to use technology as a tool to improve student achievement. Engaging students in their instruction will help to improve student achievement. Along with this, while we have summative

evaluations in place, we want to improve and better organize our efforts for formative assessments in order to better gage student achievement in an ongoing manner.

Below are the ISTEP data for spring of 2009 for English/Language Arts, Math, and Science for the elementary schools.

ISTEP ¿ Spring 2009 ¿ Percent Passing

3rd Grade	English/Language Arts = 75%	Mathematics = 70%	
4th Grade	English/Language Arts = 74%	Mathematics = 76%	Science = 71%
5th Grade	English/Language Arts = 73%	Mathematics = 79%	Social Studies = 59%
6th Grade	English/Language Arts = 75%	Mathematics = 75%	Science = 63%

Rush County Schools began using Acuity for custom assessments last spring and began the Predictive Tests this fall. Below is the information for the predicted performance for students on ISTEP.

3rd Grade	English/Language Arts = 71%	Mathematics = 66%
4th Grade	English/Language Arts = 74%	Mathematics = 66%
5th Grade	English/Language Arts = 71%	Mathematics = 76%
6th Grade	English/Language Arts = 71%	Mathematics = 67%

We are currently using these results to create custom assessments at grade levels and classroom assessments. With limited computer lab availability and the time to evaluate assessments completed by students using paper and pencil, the learner response systems would allow also allow for quick feedback on the custom assessments for that curriculum and instructional modifications can be made in a more timely manner.

We plan to continue to find ways to improve instruction and give teachers the tools that they need in order to improve instruction. Through improved instruction, the goal is to see greater student achievement, which will be reflected in their standardized test scores.

GOALS/OBJECTIVES

The primary goal that will be addressed through resources gained from this grant is to improve student engagement in their learning in order to meet the goals that the buildings have in both their school improvement plans and technology plans. Another goal is to expand and improve access for students to technology. These goals align very well with the activities that we have planned in our project for this grant.

Arlington Elementary School has three goals as a part of their school improvement plan. These goals are to demonstrate increased mastery of the English/Language Arts Standard of Reading Comprehension in each of the next three school years, demonstrate increased mastery of the Mathematics Standard of Problem Solving in each of the next three school years, and reduce the number of Special Education Students failing ISTEP by 10% in the next three years.

Mays Elementary School also has three goals as a part of their school improvement plan. These goals are to improve in the area of language arts with at least 90% of its students passing ISTEP+, improve in the areas of mathematics with at least 90%of its students passing ISTEP+, and having students know the appropriate behavior expectations for Mays Elementary.

Milroy Elementary School¿s three goals as a part of their school improvement plan are to improve student performance in E/LA as measured by performance on local, state, and national assessments for all students, improve student achievement in Math as measured by performance on local, state, and national assessments for all students, and continue to improve in all academic areas, by maintaining highly qualified staff and providing opportunities for staff members to stay abreast of current educational trends for all students.

Rushville Elementary School¿s school improvement plan includes the goals of encouraging a rigorous curriculum and focusing on academic areas through programs such as Building Blocks, Four Blocks, and Big Blocks,

Rush County Schools has several goals in the corporation technology plan. Many of these goals can be addressed through the projects of this grant. These goals are listed below.

- Use technology as a tool to meet the education needs of all students in Rush County Schools.

- Utilize computer software that enhances classroom instruction and teaches to the Indiana Academic Standards.

- Use technology to enhance assessment capabilities.

- Utilize the Internet to supplement, or more effectively access, traditional information sources.

- Provide staff development for the technology staff to aid them in best meeting the technological needs of the schools.

- Train all teachers to effectively use technology to improve both management and instructional skills.

In analyzing these goals, we found that our overall goal is to improve student achievement in reading and math. Within this main goal, we believe that there needs to be changes in instructional and assessment practices in order provide greater opportunities for student participation and engagement. Students will be improving their skills in order to meet the Indiana Academic Standards with the use of technology tools to do so. These tools will help students and teachers to become more interactive with the curriculum resources that are offered in all subject areas. They will also offer opportunities for more individualized and differentiated instruction to better meet the needs of all students. These opportunities for individualization and differentiation will also support our efforts with Response to Intervention. We will be able to use the learner response systems to get a better idea of student understanding while using interactive whiteboards to provide more opportunities for students to play an active role in their learning.

METHODS/ACTIVITIES

After analyzing our baseline data and goals from improvement and technology plans, we have decided to focus our technology integration first in the areas of math and reading. More specifically, we will be working on instructional strategies to improve the percent passing of fourth through sixth grade students on the English/Language Arts and Mathematics ISTEP+ tests. The technological tools of interactive whiteboards and learner response systems will be very beneficial in improving our instructional and assessment strategies.

The first part of this project will begin with professional development activities for teachers in the areas of instructional strategies and formative assessments. This will begin with a survey of teachers. Teachers will also be given opportunities to meet with and visit classrooms from our partnering district, Mt. Vernon Community School Corporation, to see the implementation of technology into math and reading instruction being used. Next will be professional development in classroom strategies. Then teachers will receive training in using the tools of interactive whiteboards and learner response systems to support these strategies. Teachers will then be collecting student data based on the Acuity predictive test in Language Arts and Mathematics and the Spring 2010 ISTEP results. This will include both the percent passing in these areas as well as the specific standards areas in which student improvement is needed. Finally, teachers will work in grade-level groups to create lessons in mathematics and reading, as well as formative assessments to be used in the classrooms. These lessons and assessments will make instruction more student-based using the instructional tools.

Teachers will begin to implement these lessons during the 2010-2011 school year. As a result of the addition of the interactive whiteboards and learner response systems into fourth through sixth grade classrooms, teachers will be able to involve their students more in all classrooms. This will encourage students to use higher order thinking skills. Students will participate in class to a greater degree through the use of the interactive whiteboards. The learner response systems will allow for teachers to gain immediate feedback on the progress of students as well as differentiate instruction for students in order to better meet their instructional needs. As students become more involved in their classes, they will also become more engaged in their learning.

The plan is to then use the results that we find after the 2010-2011 school year to continue to improve our instructional strategies, not only for math and reading, but also for science and social studies. We believe that after we begin this process beginning with a couple of subject areas, this will quickly spread to other subject areas. As teachers begin to see results in the areas of math and reading, they will naturally transfer these instructional strategies to the other subject areas.

This grant would allow teachers to use instructional strategies that would otherwise be difficult or impossible to implement. We also think teachers will be able to enhance instructional strategies they are already implementing, with Four Block, differentiated instruction, and Response to Intervention to the next level as they learn how to implement instructional methods that are more students-based.

As funding allows, we would also like to expand this project to other grade levels. From the research that we have done based on these instructional tools and their impact on students¿ achievement, we believe that all grade levels can benefit from these tools when they are used with more student-based instructional strategies and assessments.

PROFESSIONAL DEVELOPMENT

A combination of technology training with training in teaching strategies will help to improve academic achievement based on Indiana¿s Academic Standards. This grant will allow teachers and technology staff members to take part in a variety of professional development opportunities.

Spring 2010 ¿ Teachers and administrators will be given the LoTi Digital-Age Survey facilitated by the Director of Technology. This will provide teachers with a personalized digital-age professional development profile aligned to the NETS for Teachers. This profile offers recommendations aligned to instructional initiatives.

Spring 2010 ¿ Teachers and administrators will visit classrooms at Mt. Vernon Community School Corporation to see instructional and assessment strategies involving interactive whiteboards and learner response systems. Teachers will also meet with other teachers from the partner corporation to learn more about implementing these strategies into the classroom. These visits will be facilitated by administrators from both corporations.

Spring and Summer 2010 ¿ Teachers and administrators will receive training in creating lessons using more interactive and student-based instructional strategies facilitated by a contracted presenter. They will also receive training in creating formative assessments to be used in the classroom to better guide instruction and improve student learning.

Spring and Summer 2010 ¿ Teachers, administrators, and technology staff will receive training in using interactive whiteboards and learner response systems facilitated by vendor trainers. The elementary schools will be trained by grade level and/or building.

Spring and Summer 2010 ¿ Teachers and administrators will meet to analyze formative and summative testing data to determine the specific standards areas that need to be the focus of improved instruction and assessment. These will be facilitated by the administrators.

Spring and Summer 2010 ¿ Teachers and administrators will meet by grade levels to create interactive and student-based lessons. They will also create formative assessments to be used throughout these lessons. These meetings will be facilitated by administrators.

2010-2011 School Year - Teachers, administrators, and technology staff will receive a second level of training in using interactive whiteboards and learner response systems facilitated by vendor trainers. The elementary schools will be trained by grade level and/or building.

2010-2011 School Year ¿ Teachers will meet after school for ongoing evaluation and discussion of the program to help one another in the continuing implementation of the strategies. The elementary teachers will have the opportunity to meet with their grade level four times during the school year.

2010-2011 School Year ¿ The teachers and administrators from Rush County Schools and Mt. Vernon Community Schools will meet face-to-face and using online tools, such as The Learning Connection to share ideas and lessons. These will be facilitated administrators from both school corporations.

2010-2011 School Year ¿ The technology staff will attend workshops and conferences that will help them to become more proficient in the implementation and use of these technological tools. They will also be given opportunities that will help to improve their knowledge and skills of new technologies and software that could be implemented into this program in the future.

2010-2011 School Year ¿ All teachers and staff members will have opportunities for professional development 40 minutes each week. Some of these opportunities will be used for follow-up training and collaboration with implementing these technological tools into the elementary classrooms. Building administrators will be responsible for planning and facilitating this time.

FORMATIVE/SUMMATIVE EVALUATION

Evaluation of this program will be very important to its continued success. The evaluation of this program will be based on student performance and the experiences involved in this project. Time will be provided throughout the project and at the end of each school year to do both formative and summative evaluation.

- LoTi Digital-Age Survey ¿ Teachers will take this survey in the Spring of 2010 as well as the Spring of 2011 to compare the innovative teaching practices of teachers from the beginning of this project to a year into the project.

- Acuity Predictive Assessments ¿ Students will be assessed using Acuity three times each year in English/language arts and mathematics and twice a year in science and social studies. Teachers and

administrators will monitor student achievement throughout the school year based on Indiana¿s Academic Standards. The focus will be on the math and reading skills for fourth through sixth grade students.

- ISTEP Testing ¿ Students will take the English/Language Arts ISTEP+ Test in the spring of each school year. When the school receives the scores of these students, they will meet to compare the percent passing to the previous year, they will assess the needs of the students in the areas of Indiana¿s Academic Standards based on the percent mastery, and they will analyze the items to determine where students had difficulty.

- Surveys ¿ Teachers, students, parents, and administrators of the elementary schools who participate in this program will be given surveys. These surveys will focus on instructional strategies and the use of technology to help with these strategies. The results of these surveys will be used to evaluate and plan for improvements to the program after each school year.

- School Improvement and Technology Plans - Each year the school improvement and technology plans for all school in Rush County Schools will be evaluated and revised. Included in this process will be the opportunity for buildings to make improvements and additions to this ongoing project.

These evaluation strategies will ensure continued improvement and success of the program. These will be in addition to any appropriate state and federal evaluations and reports.

LOCAL MATCH

$45,500

Local funds will be used as a part of this project in order to equip and install projectors in all fourth through sixth grade classrooms. Rush County Schools will use our existing maintenance and technology staff to install the projectors. The plans in laying this groundwork is to then to be able to use instructional technological tools, such as the interactive whiteboards and learner response systems in these classrooms.

The approximate costs for these items are listed below.

- Rush County Schools - Projectors and Installation Equipment for 27 classrooms ¿ 27 @ $850.00 = $22,950

- Rush County Schools - Salary for maintenance and technology staff ¿ Maintenance staff = $6,000.00 + Technology staff = $4,000.00 = $10,000.00

- Mt. Vernon Community School Corporation ¿ Wiring and Infrastructure for 14 classrooms ¿ 14 @ $1,000.00 = $14,000.00

The total for the local funds is $46,950. Rush County Schools also plans to use our existing maintenance and technology staff to install the projectors that are a part of this project for the elementary schools. In addition, St. Mary Catholic School plans to use their local funds to cover the cost of installation of projectors they would receive from this grant.

PARTNERSHIPS

Rush County Schools (RCS) and Mt. Vernon Community School Corporation (MVCSC) are excited to partner together for the activities in this project. We strongly believe that the efforts that MVCSC has made in providing more student-based and interactive instruction will aide RCS in the successful integration of technology. The primary goal of this partnership is for teachers to be able to learn from other teachers to develop and deliver lessons that actively engage students. RCS and MVSCS teachers will benefit from the successful integration already in place within many of the MVCSC classrooms. MVCSC teachers that are currently using the proposed technology will gain new insight and ideas from teachers using the technology for the first time.

MVCSC has made it a primary purpose to meet the educational needs of tomorrow¿s citizens as each one prepares to assume a responsible role in society. The staff of MVCSC is aware that technology is a vital aspect of preparing today¿s students in becoming tomorrow¿s citizens and has demonstrated this vision through previous initiatives. The MVCSC School Board was the first school board in the country to adopt minimum technology proficiencies for its entire certified teaching staff. As a condition of employment, these proficiencies must be completed within the first two years teaching at MVCSC. Technology must be used in the classroom as a teaching/learning strategy that can be documented in lesson plans and observations. RCS wants its teachers to collaborate with MVCSC teachers because of this commitment to technology integration.

All schools in the MVCSC (K-12) have a fiber backbone connection that was funded by a Lilly CAPE grant. MVCSC has a proven track record of actively seeking outside grants to help in the implementation of cutting edge technology that shows the corporation¿s commitment to integrating technology into all parts of our curriculum. Mt. Vernon High School houses a Hi-Tech Academy, a virtual reality lab and five 1-to-1 English Language Arts Classroom. Second grade students at Fortville Elementary benefit from the 1-to-1 second grade laptop grant and use interactive whiteboards in their classrooms. MVCSC currently has 15 student response systems used at various grade levels in the district, 30+ devices that allow interactive whiteboard technology, and uses ENO boards at the elementary level and wireless slates in grades 5 through 12.

The partnership between RCS and MVCSC is a natural partnership. Our school districts participate in the same athletic conference. The conference has already expanded beyond athletics by meeting as AP teachers / Department Chairs at the high school level, and this grant would allow the opportunity for this partnership to grow at other levels. MVCSC has agreed to host teachers from Rush County Schools to view and share with teachers integrating technology and to send teachers to Rush County Schools in a coaching role to work with teachers in their classrooms. Both schools host Moodle servers and have access to the Learning Connection to set up an online community for teachers at MVCSC and Rush County to collaborate as they implement this technology into their classrooms. MVCSC has agreed to post podcasts, video demonstrations, forums and chats as well as resources that would be helpful to staff at both schools. Since each district has five 1-to-1 Language Arts classrooms, the partnership may expand to collaboration on the 1-to-1 grant to share successes across districts.

The success of this partnership will be insured by the commitment of the entire technology staff, professional development coordinators, media specialist, principals, and participating teachers that will all be a part of the partner activities for this grant.